

AC Transit

1600 Franklin Street,
Oakland, CA 94612

www.actransit.org

Products

Launched Fuel Cell Program with innovative fuel cell bus contract bringing together AC Transit, ISE Research, UTC Fuel Cells, and VanPool Bus Company to build three fuel cell buses for delivery in 2004.

Description

AC Transit is one of the largest public transit operators in the United States, with a fleet of nearly 800 buses and an annual ridership of over 70 million passengers. It serves over 1.3 million people living in 13 cities in the East Bay of the San Francisco Bay Area.

Phone

510-891-7245

Fax

510-891-7205

Advanced Material Sciences, Inc.

55 South Lake Avenue,
Pasadena, CA 91101

www.amsfc.com

Products

The combinatorial catalyst discovery approach has been licensed by AMS.

Description

Advanced Material Sciences, Inc. (AMS) is a subsidiary of Acacia Research Corporation. AMS will develop the next-generation fuel cells, primarily for portable electronic devices.

Phone

626-396-8300

Fax

626-744-9585

E-mail

info@acaciares.com

Advance: Solar, Hydro, Wind Power Company

P.O. Box 23, 6291 North State Street
Calpella, CA 95418

www.advancepower.net

Description

2001 has seen Advance: Solar, Hydro, Wind Power Company design and install numerous fuel cells in commercial and residential applications. Advance Power is powered by a fuel cell, solar and wind electrical system and so is the business owners' home.

Phone

707-485-0588

Fax

707-485-0831

E-mail

advance@advancepower.net

AeroVironment, Inc.

825 South Myrtle Avenue,
Monrovia, CA 91016

www.aerovironment.com

Products

Flight of First Fuel Cell-Powered Airplane – (Hornet DARPA, March 2003)
Developed first regenerative fuel cell system for an airplane (Helios—NASA, 2002)
Developed first primary fuel cell system for an airplane (Helios—NASA, 2003)
Developed hybrid

Description

AeroVironment performs fuel cell systems integration services and provides fuel cell test equipment. We are the world's experts in flight ready Fuel Cell (FC) system development (first FC powered airplane, first regenerative and primary FC systems).

Phone

626-357-9983

Fax

626-359-9628

E-mail

sales@aerovironment.com

Alternative Energy Systems Consulting, Inc.

1945 Camino Vida Roble, Suite A
Carlsbad, CA 92008

www.aesc-inc.com

Description

Alternative Energy Systems Consulting, Inc. (AESC) provides technology assessments, performance testing, technology integration studies and market evaluations for fuel cell developers, component suppliers, investors and government agencies.

Phone 760-931-0517
Fax 760-438-5020
E-mail rishii@aesc-inc.com

ARCADIS Geraghty & Miller, Inc.

1400 North Harbor Boulevard, Suite 700
Fullerton, CA 92835-4127

www.arcadisgmi.com

Description

Conduct fuel cell vehicle demonstrations and perform fuel cell and reformer emissions testing.

Phone
714-278-0992
Fax
714-278-0051
E-mail
arcadisgm@arcadis-us.com

Bechtel Corporation

P.O. Box 193965,
San Francisco, CA 94119-3965

Description

Demonstration operating at Naval Air Station at Miramar, California.

Phone
415-768-1234
Fax
415-768-3580

Bourns College of Engineering

College of Engineering
Center for Environmental Research & Technology (CE-CERT), Mail Code 022
Riverside, CA 92521-0434
USA

www.cert.ucr.edu

Description

Proton exchange membrane development; gasification technologies; hydrogen storage and use for transportation; hydrogen/gaseous fueled internal combustion engines; decarbonization of transportation systems; vehicle emissions modeling; and air quality modeling.

Phone
909-781-5791
Fax
909-781-5790

BP

6 Centerpointe Drive
La Palma, CA 90623-1066
www.bp.com

Products

In Hydrogen, we are implementing a series of demonstration projects in Europe to develop a good understanding of the technical, cost and customer acceptance issues associated with this alternative energy.

Description

BP is divided into four main business segments: Exploration and Production; Refining and Marketing; Petrochemicals; and Gas, Power and Renewables. Our business segments operate across four regions. Their activities are supported by a number of key corporate functions. We operate in 100 countries with well-established businesses in Europe, North and South America, Australasia and Africa.

Phone
714-670-3024
Fax
714-670-5272

California Hydrogen Business Council

3121 Brimhall Drive,
Los Alamitos, CA 90720-5206

www.ch2bc.org

Description

A non-profit corporation which offers a meeting forum for the discussion of opportunities serving the interest of the hydrogen industries. Provide comprehensive information on hydrogen and its uses to educational institutions.

Phone

562-596-5080

Fax

562-596-3022

CALSTART

2181 East Foothill Boulevard,
Pasadena, CA 91107

www.calstart.org

Description:

Work with private industry to provide technology development and demonstration, industry analysis, marketing, business development, and fleet implementation services. Its expertise includes electric vehicles; natural gas vehicles, hybrid-electric vehicles and fuel cell powered vehicles.

Phone

626-744-5600

Fax

626-744-5610

E-mail

feedback@calstart.org

Catalytica Energy Systems

430 Ferguson Drive,
Mountain View, CA 94043

www.catalyticaenergy.com

Description

Provide contract research and development services to improve clients' technologies and commercial operations.

Phone

650-960-3000

Fax

650-968-7129

Center for Energy Efficiency and Renewable Technologies

1100 11th Street, Suite 311
Sacramento, CA 95814

www.ceert.org

Description

CEERT is a nonprofit public-benefit organization founded in 1990 in Sacramento to bring together concerned scientists, environmentalists, public interest advocates and innovative energy technology companies – all of whom share a vision to benefit the environment with sustainable solutions to California's growing appetite for energy. This productive collaboration of public and private interests has helped foster an emerging consensus for applying clean technologies to longstanding economic, political and environmental problems. In 2001, CEERT formally launched a program we call the Cleaner Transportation Project. With this project, CEERT plans to influence local and statewide policy to support and promote cleaner burning and alternative fuel vehicles across the board, from personal autos to public buses.

Phone

(916) 442-7785

Fax

(916) 447-2940

E-mail

info@ceert.org

Circle Seal Controls Division Circor International

2301 Wardlow Circle,
Corona, CA 92880

www.circle-seal.com

Products

Circle Seal Controls is extending technology developed for compressed natural gas into the hydrogen era to support fuel cell growth.

Description

Circle Seal Controls specializes in providing solutions to critical valve applications. Circle Seal Controls is a leading supplier of leak tight check valves, relief valves, thermally activated pressure relief devices, as well as regulators and solenoids.

Phone

909-270-6200

Fax

909-210-6201

E-mail

sales@circle-seal.com

Clean Fuel Generation, L.L.C.

11911 San Vincente Boulevard, Suite 375,
Los Angeles, CA 90049

www.cleanfuelgeneration.com

Description

Clean Fuel Generation is a research and development company, currently developing fuel cell systems for recreational vehicles. They are committed to commercializing fuel cell technology for the recreational vehicle market and other applications.

Fax

(310) 471-2862

Coval H2 Partners, LLC

69-391 Dillion Road
Desert Hot Springs, CA

www.covalh2000.com

Description

Coval Partners is a California company that has developed battery-powered and hybrid electric vehicles and stationary power systems since 1995. Our hybrid systems are modular - and are designed to use a fuel cell to provide electric power to charge the system batteries or capacitors.

E-mail:

wharris@covalh2000.com

Direct Methanol Fuel Cell Corporation (DMFCC)

2400 Lincoln Avenue,
Altadena, CA 91001

www.dmfcc.com

Products

DMFCC has designed and filed a patent application on a universal interface to connect fuel cartridges with all manufacturers' dmfc products and has produced samples of its first prototype cartridge.

Description

Direct Methanol Fuel Cell Corporation (DMFCC) is a spin-off from the Caltech/ NASA Jet Propulsion Laboratory (JPL) formed to commercialize products using patented direct methanol fuel cell (DMFC) technology developed at JPL and the University of Southern California (USC) as well as its own proprietary technology. DMFCC is focused on producing fuel cell cartridges for the potentially multi-billion-dollar micro-fuel cell market.

Phone

(626) 296-6310

Fax

(626) 296-6311

E-mail

kukkonen@dmfcc.com

Enova Systems

19850 South Magellan Drive,
Torrance, CA 90502

www.enovasystems.com

Products

Enova Systems is a globally recognized leader in developing innovative power management technologies. Enova's team has combined technologies with world class partners like Ford Motor Company, Hyundai Motors and UTC to develop world class fuel cell propulsion and management systems.

Phone

310-527-2800

Fax

310-527-7888

Fluor Corporation

One Enterprise Drive
Aliso Viejo, CA 92656-2606

www.fluor.com

Products

Fluor Corporation is one of the world's largest, publicly owned engineering, procurement, construction, and maintenance services organizations. Fluor serves fossil power, fuel cell and waste-to-energy industries worldwide. Fluor continues to focus on reconstruction efforts in post conflict Iraq and Afghanistan.

Phone

949.349.2000

Fax

949.349.2585

Fuel Cell Buyers Consortium

Los Angeles County Metropolitan
Transportation Authority
One Gateway Plaza
Los Angeles, CA 90015

Description

Working as part of a joint project to develop fuel cell powered Advanced Technology Transit Bus.

Phone

213-922-3014

Fax

213-922-3022

FuelSell Technologies

601 Van Ness Ave., Suite E3613,
San Francisco, CA 94102

www.fuelselltechnologies.com

Description

FuelSell Technologies is committed to the development and the commercialization of the first cost-effective, safe, reliable and feasible alternative fuel production and distribution technology.

Phone

415-978-2301

Fax

707-982-7342

E-mail

contact@hydrogen-fuels.com

Honeywell

2525 West 190th Street
Torrance, CA 90504

www.honeywell.com

Products

Manufacture sensors and control systems applicable to fuel cells and fuel reformers.

Phone

310-512-4600

Fax

310-512-1494

Hydrogen 2000, Inc.

11684 Ventura Blvd., Suite 5108
Studio City, CA 91604

www.hydrogen2000.com

Products

Produced "Hydrogen: The Safe and Clean Fuel" for television broadcast with the sponsorship of the DOE/NREL, Natural Resources Canada, the Engineering Advancement Association of Japan/Ministry of Economy, Trade, and Industry, and the South Coast Air Quality

Description

Hydrogen 2000, Inc. is a nonprofit 501© (3) created to build public awareness of the hydrogen option through the media; primarily documentaries and educational videos. It was formed in 1995 by a number of scientific professionals and members of the media.

Phone

818-980-0725

Fax

818-980-3407

E-mail

hydrogen2002inc@aol.com

Hyundai Motor Company

3300 Industrial Boulevard
W. Sacramento, CA 95691

www.hyundai-motor.com

Products

Developing PEMFC vehicles
The Hyundai Santa Fe, powered by a 75-kW PEM fuel cell, scored best in class in two key performance tests at the Michelin Challenge Bibendum, an annual event where new automotive technologies are evaluated by independent judges. The Santa Fe scored an "A"

Phone

(916) 374-1987

Fax

(916) 374-1971

H2 Solutions Inc.

690 Maranatha Dr. CA
Hollister, CA 95023

www.h2solutions.com

Description

Engage in project management in the implementation of customer desired designs and projects. We are interested in bringing hydrogen infrastructure hydrogen applications into reality by means of effective project development, engineering and implementation "2002 Accomplishments:

1. Prototype portable fuel cell design
2. R & D developments in bio-fuel production of H2
3. Prototype development of dual fuel internal combustion automobile
4. ICE applications for electricity generation"

Phone

831-635-0509

Fax

831-635-0300

ebless@h2solutions.com

IMPCO Technologies, Inc.

17872 Cartwright Road,
Irvine, CA 92614

www.impcotechnologies.com

Description

IMPCO Technologies, Inc. is a leading designer, manufacturer and supplier of fuel storage, fuel delivery and electronic control systems that allow internal combustion engines and fuel cells to operate using clean fuels such as hydrogen, propane, and natural gas.

Phone

949-399-4511

Fax

949-399-4600

ISE Research - Thundervolt

7345 Mission Gorge Road, Suite K
San Diego, CA 92120

www.isecorp.com

Products

ISE Research designs, integrates and manufactures heavy duty hybrid-electric and electric vehicles. The major parts of this include the drive train, the energy storage system, the power unit, electrically driven accessories, and the overall system. Delivered the Thor/UTC/Thunderpower fuel cell/battery electric bus to Sunline Transit in Palm Desert, California. Working with UTC to deliver four (total) fuel cell buses to AC Transit and SunLine in 2005.

Phone

619-287-8785

Fax

619-287-8795

E-mail

facts@isecorp.com

Jet Propulsion Laboratory

4800 Oak Grove Drive
MS 277-207
Pasadena, CA 90109-8009

www.jpl.nasa.gov/index.html

Products

Division of Caltech; partners with University of Southern California.

Fuel cell research targets portable fuel cells and fuel cells that use methanol

Phone

818-354-0352

Fax

818-393-6951

L-3 Communications/Power Paragon, Inc.

1051 South East Street,
Anaheim, CA 92805

www.powerparagon.com

Products

As an integral component of a fuel cell power plant or other DC power sources, L-3 Communications/Power Systems Group's Frequency Conditioner Inverter (FCI) system produces high quality power for both grid-connected and grid-independent applications.

Description

L-3 Communications/Power Systems Group is a worldwide leader in the engineering, development, manufacture and integration of power conversion and distribution systems for defense, governmental and advanced industrial applications.

Phone

714-956-9200

Fax

714-956-4016

E-mail

customer.spd@ppi.l-3com.com

Mazda R&D of North America, Inc.

Developmental Research Department
1421 Reynolds Avenue
Irvine, CA 92714-5531

www.mazda.com

Products

Vehicle manufacturer working on fuel cell and hydrogen powered vehicles. Mazda RX-8 Hydrogen Rotary Engine debuted in 2004, featuring a fuel system that consists of a high-pressure hydrogen tank. The vehicle balances the needs of the driving enthusiast and the environmentalist with a blend of alternative power and the exhilarating driving experience for which Mazda is known.

Phone

949-852-7291

Fax

949-261-8071

Merit Academy

2392 North Rodeo Gulch Road,
Soquel, CA 95073

www.meritworld.com

Description

Curriculum includes a Hydrogen Fuel Cell Project, in which students demonstrate fuel cell technology and are educated about renewable energy sources. The students present speeches and demos for schools, public exhibits, and environmental conventions.

Phone

831-462-5655

Fax

831-462-0506

E-mail

merit@meritworld.com

Methanex, Inc.

200 Burrard Street, Suite 1800
Vancouver, BC
V6C 3M1
Canada

www.methanex.com

Products

Methanex is the global leader in methanol production and marketing, with listings on both the TSE and NASDAQ exchanges. Methanol can be used directly as a fuel for fuel cells or can be reformed to hydrogen at a refueling site or on board the vehicle. Met Working to make methanol a part of the coming hydrogen economy. Methanex is an associate member of the California Fuel Cell Partnership

Phone

604-661-2600

Fax

604-661-2676

E-mail

invest@methanex.com

Nexant, Inc.

44 Montgomery Street
41st Floor
San Francisco, Ca 94104-4814

www.nexant.com

Products

Nexant provides technology solutions and experienced-based technical and management consulting services to electric utilities, energy producers, petroleum and chemical companies, governments, and energy end-users worldwide. Nexant is managing a fuel cell bus demonstration project in Cairo, with funding from the United Nations Development Program (UNDP), Global Environmental Facility (GEF), and the Egyptian government. The \$24 million project will involve eight buses using PEM fuel cells as the power train in addition to hydrogen production, storage, and dispensing facilities.

Phone

415-912-2177

Fax

415-981-9744

Nuvera Fuel Cells

35 Acorn Park
Cambridge, MA 02140

www.nuvera.com

Products

Nuvera Fuel Cells, Inc. was formed in 2000 when Epyx Corp. merged with De Nora Fuel Cells. Epyx' technology enables the conversion of gasoline and other commonly available hydrocarbon fuels into hydrogen to produce electricity. De Nora Fuel Cells has delivered more than 310 fuel cell stacks to customers around the world in the stationary and transportation markets since 1993. In 2003, Nuvera fuel cells were integrated into 2 Fiat vehicles and Nuvera unveiled its commercial product a 5kW fuel cell power module called "H2e™"

Phone

617-498-6655

National Fuel Cell Education Program

18051 Irvine Boulevard,
Tustin, CA 92780

www.nfcep.org

Description

The National Fuel Cell Education Program is a project of Eco Soul, Inc a California not-for-profit 501(c)(3). The mission of the National Fuel Cell Education Program (NFCEP) is to proactively advocate a hydrogen and renewable energy future.

Phone

714-573-4955

Fax

714-730-8902

E-mail

info@nfcep.org

Pacific Gas and Electric

123 Mission Street
San Francisco, CA 94105

www.pge.com

Products: Pacific Gas and Electric Company is one of the largest combination natural gas and electric utilities in the United States. The company serves approximately 13 million people throughout a 70,000-square-mile service area in northern and central California. PG&E is an associate member of the California Fuel Cell Partnership. A hydrogen fueling station will open in 2004 that uses PG&E technology.

Phone

(800) 303-3000

Panasonic Technologies, Inc.

20300 Stevens Creek Boulevard, Suite 250
Cupertino, CA 95014

www.research.panasonic.com

Description

Researching fuel cell technology for small electronics.

Phone 408-861-8408

Fax 408-516-9774

Polyfuel, Inc.

1245 Terra Bella Avenue
Mountain View, CA 94043

www.polyfuel.com

Products

PolyFuel, Inc. develops direct methanol fuel cells (DMFC), through patented, proprietary technology. These innovative micro power systems dramatically extend the run-times of handheld, wireless and portable devices.

Phone

650.429.4700

Fax

650.930.0219

info@polyfuel.com

Procyon Power Systems, Inc.

Proton Energy Systems, Inc.
10 Technology Drive
Wallingford, CT 06492

www.pes@protonenergy.com

Products

Proton Energy Systems builds HOGENÆ PEM hydrogen generators and UNIGENÆ regenerative PEM fuel cell systems. The hydrogen generator produces hydrogen from electricity and water efficiently and without harmful by-products. Our UNIGEN regenerative FC systems combine our hydrogen generation technology with a FC power generator for uniquely cost-effective, pollution-free energy storage. Proton Energy Systems is an associate member of the California Fuel Cell Partnership.

Phone

203-678-2000

Fax

203-949-8016

E-mail

www.protonenergy.com

Sacramento Municipal Utility District

6201 S Street, Mailstop B257
Sacramento, CA 95817-1899

www.smud.org

Description

Utility company interested in developing cleaner and efficient stationary generation.

Phone

916-732-5254

Fax

916-732-6423

Shell Hydrogen

WCK 1174
200 North Dairy Ashford
Houston, TX 77079

www.shellhydrogen.com

Products

Shell Hydrogen is a global business of the Royal Dutch/Shell Group of companies with its headquarters in Amsterdam, the Netherlands, and regional bases in Houston, Hamburg and Tokyo. Shell Hydrogen was set up in 1999 to pursue and develop business opportunities researching new fuels for use in fuel cell vehicles. Shell Hydrogen is a member of the California Fuel Cell Partnership.

Phone

281-544-4170

Fax

281-544-2858

Southern California Edison

2131 Walnut Grove Avenue,
Rosemead, CA 91770

www.sce.com

Description

Utility company interested in commercialized stationary fuel cell systems.

Phone

626-302-8936

Fax

626-302-8030

Southern California Gas

Box 513249, ML 24H1
Los Angeles, CA 90051-1249

www.socalgas.com

Description

Development and commercialization of fuel cells for all applications, with specific interest in the on-site generation and distributed power areas.

Phone

213-244-2817

Fax

213-244-8242

State of California Energy Commission

1516 Ninth Street, MS-43
Sacramento, CA 95814

www.energy.ca.gov

Description

Support public interest energy research in a number of technologies, including fuel cells, gas turbines, photovoltaics, wind, biomass, and end use efficiency. Provide funds to buy down the installed cost of renewable energy generating systems.

Phone

916-654-4674

Fax

916-653-6010

Stuart Energy Systems Corporation

5101 Orbitor Drive
Mississauga, ON
L4W 4V1
Canada

www.stuartenergy.com

Products

Stuart Energy, through its proprietary water electrolysis technology, is a developer of hydrogen fuel appliances. These devices use electricity to produce hydrogen at the pressure and purity needed for fuel uses. Stuart Energy is a member of the California Fuel Cell Partnership. We have a Stuart hydrogen fueling appliance at the Richmond, CA. Another station will soon be placed in California in the SCAQMD in 2004.

Phone

905-282-7700

Fax

905-282-7701

E-mail

info@stuartenergy.com

Symyx Technologies, Inc.

3100 Central Expressway
Santa Clara, CA 95051

www.symyx.com

Products

Symyx is pioneering high-speed combinatorial technologies for the discovery of new materials.

Phone

408-764-2000

Fax

408-748-1221

Telaire

A Division of Edwards Systems Technology,
6489 Calle Real
Goleta, CA 93117

www.telaire.com

Description

OEM supplier of low cost compact infrared gas sensors for ambient or high temperature applications. Developing low cost, sensor package for fuel cells to measure CO concentration in process stream using non-invasive techniques.

Phone

805-964-1699

Fax

805-964-1699

E-mail

info@telaire.com

Toray Carbon Fibers America

6 Hutton Centre, Suite 1270
Santa Ana, CA 92707

www.torayusa.com

Products

Toray Carbon Fibers America, Inc. produces TORAYCAÆ carbon fiber using the PAN (polyacrylonitrile) process. Recognized for its high quality and processing consistency, the characteristics of TORAYCAÆ fiber make it the preferred choice of designers and engineers. Toray carbon fiber products have applications in PEM fuel cells.

Phone

(714) 431-2320

Fax

(714) 424-0750

US Department of Defense Fuel Cell Program

www.dodfuelcell.com

Organization

In fiscal year 1993, (FY93), the U.S. Congress appropriated \$18 million to advance the use of PAFCs at DoD installations. An additional \$18.75 million was appropriated in FY94 to expand the program. The U.S. Army Construction Engineering Research Laboratory (USACERL) was assigned the mission of managing the Fuel Cell Demonstration Program for the DoD. USACERL's specific tasks included developing turnkey PAFC packages, devising site criteria, screening DoD candidate installation sites against selection criteria, evaluating viable applications at each candidate site, coordinating fuel cell site designs, installation and acceptance of the PAFC power plants, and performance monitoring and reporting.

Phone

(217) 373-7214

E-mail

m-binder@cecer.army.mil

US EPA Office of Transportation and Air Quality

1200 Pennsylvania Avenue, NW
Washington DC 20460

www.epa.gov/otaq/

Description

The Office of Transportation and Air Quality's (OTAQ) mission is to reconcile the transportation sector with the environment by advancing clean fuels and technology, and working to promote more liveable communities. OTAQ is responsible for carrying out laws to control air pollution from motor vehicles, engines, and their fuels. We have conducted the first certification of a fuel cell vehicle and are a member of the California Fuel Cell Partnership.

Phone

(202) 564-1682

University of California Lawrence Livermore National Laboratory

7000 East Avenue, P.O. Box 808
Livermore, CA 94550

www.llnl.gov

Description

Lawrence Livermore National Laboratory is a multipurpose laboratory with 8000 employees operated by the University of California for the Department of Energy. It has conducted research into zinc-air fuel cell technology and has developed and demonstrated a laboratory prototype miniature thin-film fuel cell power source which provides portable electrical power for a range of consumer products.

Phone

925-422-1100

Fax

925-423-7914

Wesgo Metals

610 Quarry Road,
San Carlos, CA 94070

www.wesgometals.com

Description

Produce gold, silver, platinum, and palladium based precious metals and alloys in paste and thin foils (0.001 in. or less).

Phone

650-631-4700

Fax

650-631-4701